



O & M INSPECTION REPORT FOR NAVIGATION PROJECTS
Honolulu Engineer District
CEPOH-EC-T

Tau05rpt-sbh.doc

1. Project Name: Tau Harbor
2. Date of Inspection: March 8, 2005
3. Inspection Personnel:

	<u>Name</u>	<u>Agency/Office</u>	<u>Telephone No.</u>
a.	Dan Meyers	COE	438-8875
b.	Jessica Hays	COE	438-1680

4. Discussion:

There is a need to perform general maintenance at the project. This maintenance is primarily vegetation removal from the revetment and groin, removal of encroachments from the breakwater and repairs to the root of the revetment and the head portion of the groin.

Note: All pictures were taken on March 8, 2005 unless stated otherwise. All noted deficiencies are existing from past reports unless reported otherwise as a new deficiency. Mr. Te'i Taufa'ase'e, Supervisor, Fitiuta Airport, Tau Harbor, Tau, Manua Islands is the local point of contact.

Revetment & Breakwater:

Station	Reach
0+00 to 4+50	Revetment
4+50 to 7+04	Breakwater

Overall condition is fair. There is some deterioration and defects are evident, but structural function is not significantly affected.

Groin:

Station	Reach
0+00 to 2+00	Groin

Overall condition is fair. There is some deterioration and defects are evident, but structural function is not significantly affected.

The major deficiencies were as follows:



Revetment :



a. Sta. 0+05, two or three armor stones missing from toe of revetment near structure root, minor stone movement since 2003. Continue to monitor this area.



b. Sta. 0+25, 1 ea. flipped armor stone at the hinge, no recent change, continue to monitor.

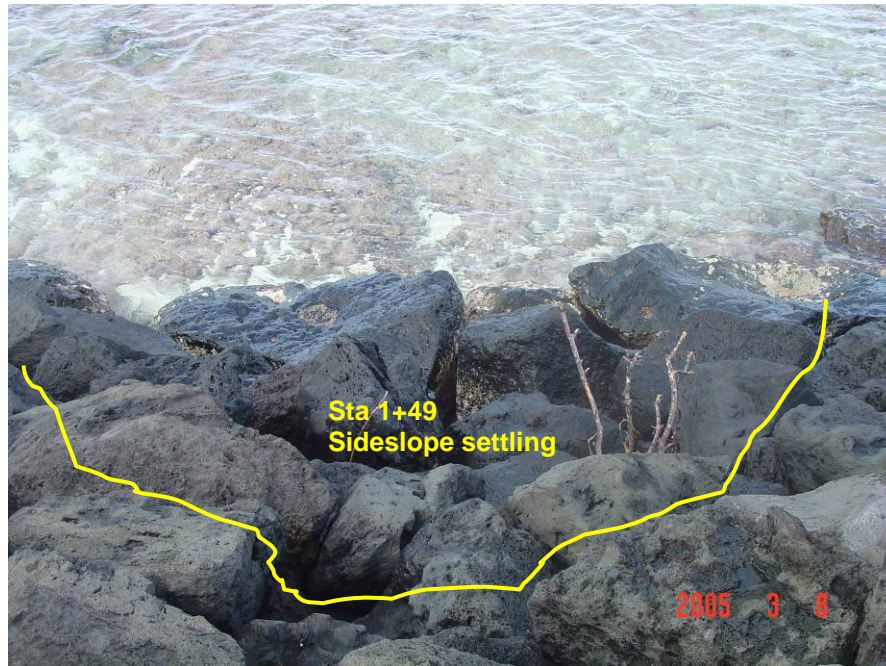
c. Sta. 0+50, 1 ea. cracked armor stone at the crest, no recent change, continue to monitor.



d. Sta 0+88, 1 flipped stone at crest hinge, new this inspection, monitor.



e. Sta. 1+15, 1 each dislodged armor stone at toe, no void observed. No change since 2003 inspection, continue to monitor.



f. Sta. 1+49, 20'x20' area of settling on side slope. No change since 2001 inspection. Continue monitoring.



g. Sta. 1+49, Cracked armor stone on crest, first noted this inspection.

h. Sta. 1+55, Monitor void, 1 ea. armor stone missing from crest.



- i. Sta. 1+82, Monitor 1 ea. flipped armor stone and settling of the sideslope. Possible missing stones at toe noted during this inspection.



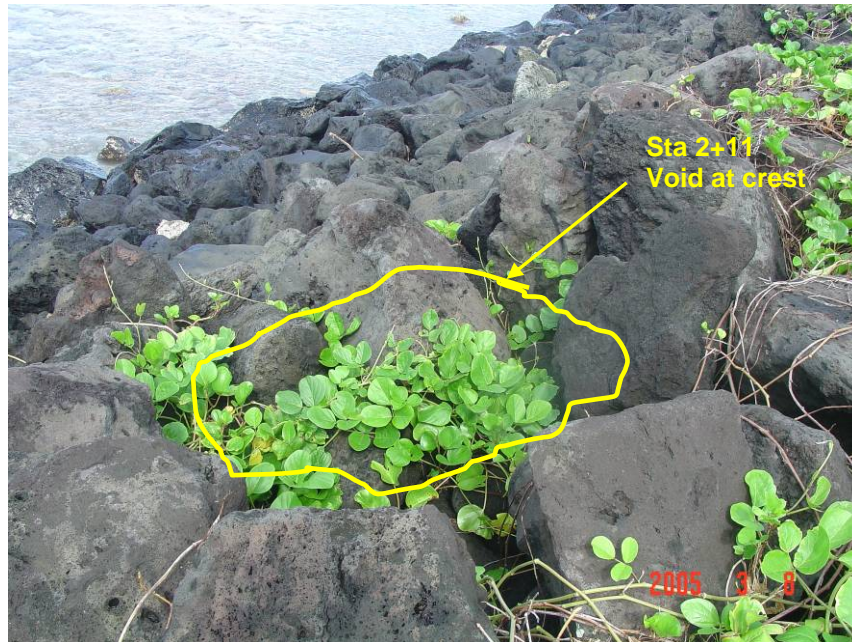
- j. Sta. 2+00 to 2+78, sideslope settling from crest to toe. First noted in 2003, continue to monitor closely.



k. Sta. 2+05, Large void at crest hinge, monitor.



l. Sta. 2+11, two armor stones dislodged at toe.



m. Sta. 2+11, Void on crest, possible previous location of dislodged stone at toe.



n. Sta. 2+49, Large void on crest, reset with armor stone.



o. Sta. 2+78, End of sideslope settling area, flipped armor stone on crest at this location as well.



p. Sta. 2+78, Overview of settling area, significant vegetation growth on crest since 2003 inspection, remove with herbicide.



- q. Sta. 3+25, HS, Monitor 1 ea. missing armor stone at the hinge w/large void. Stone has rolled back from crest.



- r. Sta. 3+38, Flipped armor stone on crest, monitor.



s. Sta. 3+50, minor settling of crest, 5 ea. armor stones "flipped" and void on the sideslope. Some movement since 2003, monitor.

Breakwater:



a. Sta. 4+23, HS, hinge, void in crest, 6'x 2'x3'deep. Reset stone.

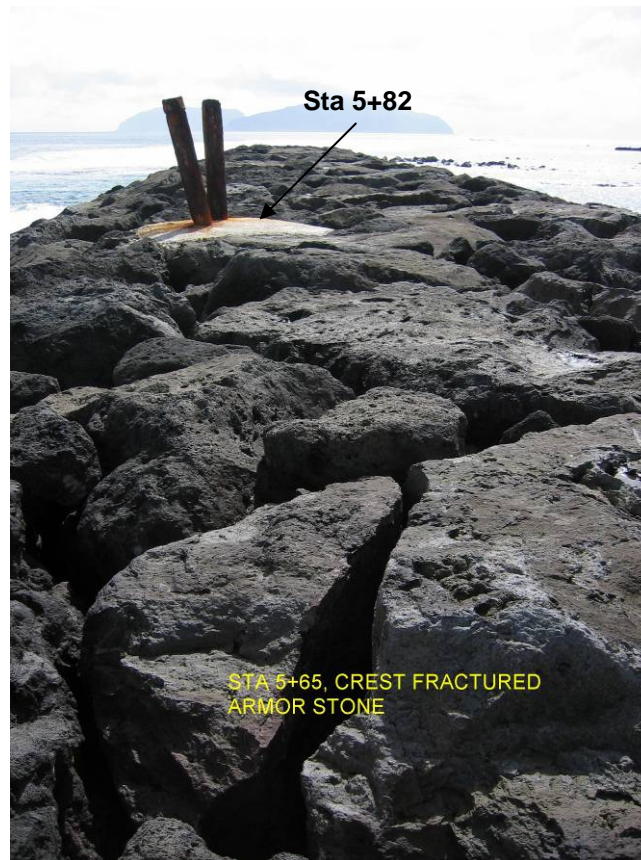


b. Sta. 4+32, HS, hinge, void at crest filled with vegetation. Remove vegetation along this area and replace armor stone.

c. Sta. 4+44, monitor missing armor stones (possibly covered by coral material) at the intersection of breakwater and interior revetment. Stones not tied together well. Not visible in 2005 inspection.



d. Sta. 5+32, OS, 1 armor stone dislodged and resting 4' from toe in 2003 is now gone. Void created from dislodged armor stone.



e. Sta. 5+65, Crest, 1 fractured armor stone. Sta. 5+82, metal pipes. (2003 Photo)



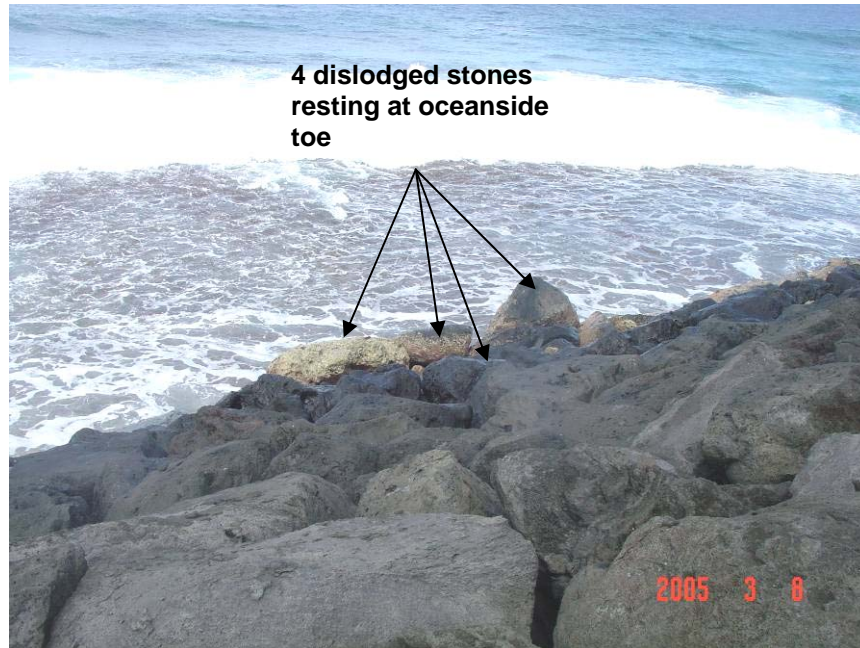
f. Sta 5+82, metal pipes set in concrete used as moorings. Remove from structure.



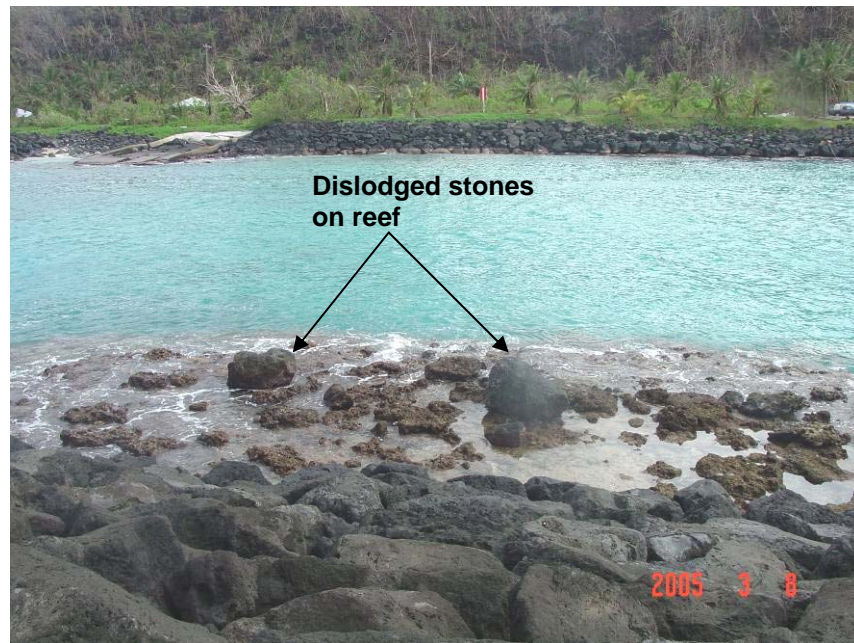
g. Sta 5+93, Cracked armor stone on crest, new this inspection.



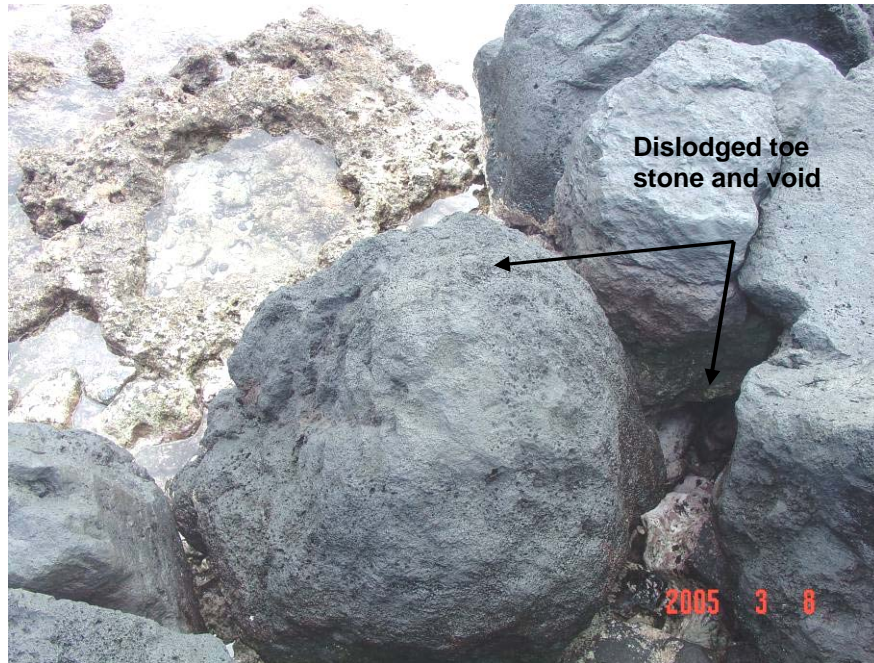
f. Sta. 6+14, Crest, 1 fractured armor stone, noted in 2003 inspection.



g. Sta. 6+33, OS, four armor stones resting at the toe, possibly dislodged from head area (Sta.7+40, OS).



h. Sta. 6+46 and 6+67, HS, 2 dislodged armor stones resting on reef at toe.



i. Sta. 6+67, HS, 1 dislodged armor stone and void at toe.



j. Sta. 6+75, HS, 1 dislodged toe armor stone. Sta. 7+04, end breakwater.



k. Sta. 6+95, OS, 20LF of toe armor stone is missing.



l. Overview of breakwater.



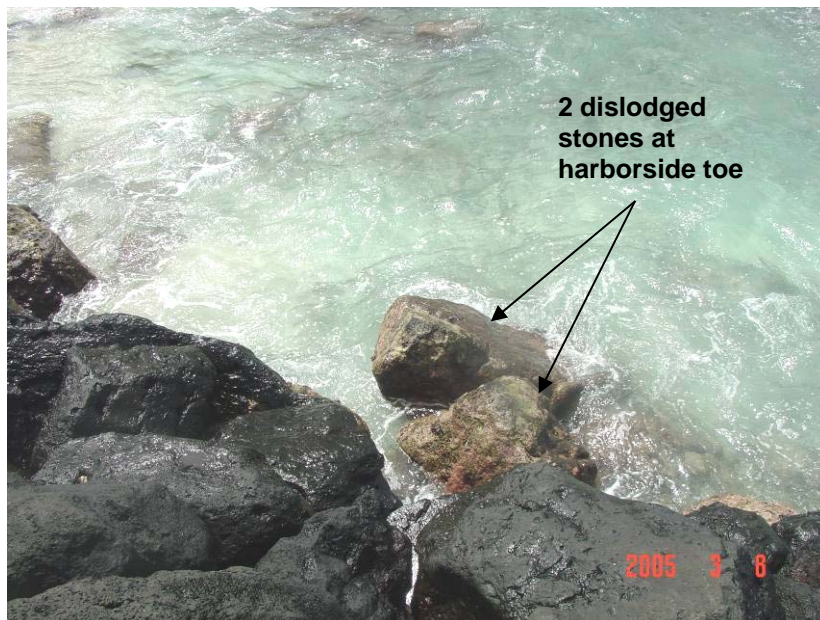
Groin:



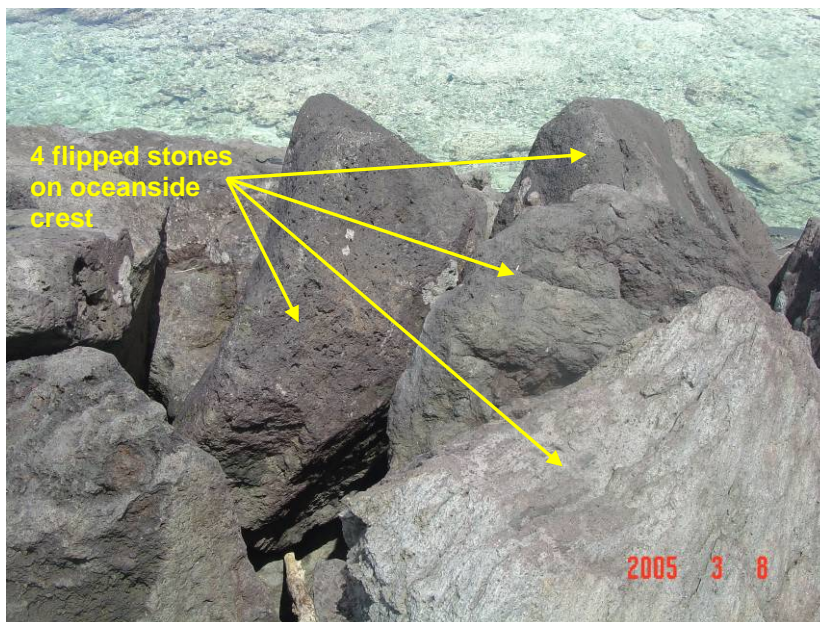
a. Sta. 0+00, to 0+69, The vegetation continues to thicken and creep further onto the root of the structure. Remove tree and vegetation growing on structure.



b. Sta. 0+94, HS, 1 dislodged armor stone and void at toe, reset stone.



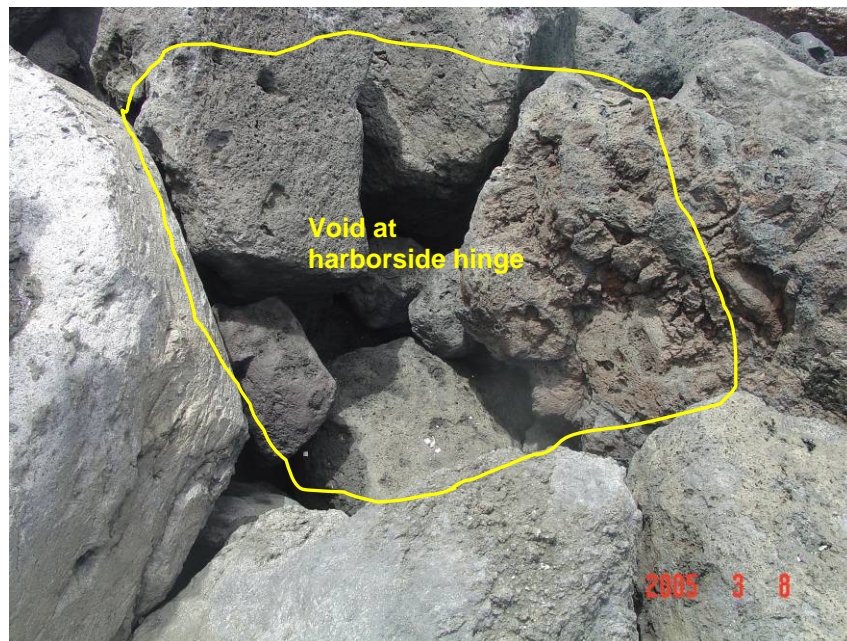
c. Sta. 1+24, HS, two dislodged toe stones. Monitor. Also a cracked armor stone on crest, and 1 ft separation at HS hinge with some sliding of stones on sideslope, new this inspection. Monitor closely.



d. Sta. 1+36, OS crest, four flipped armor stones and small void.



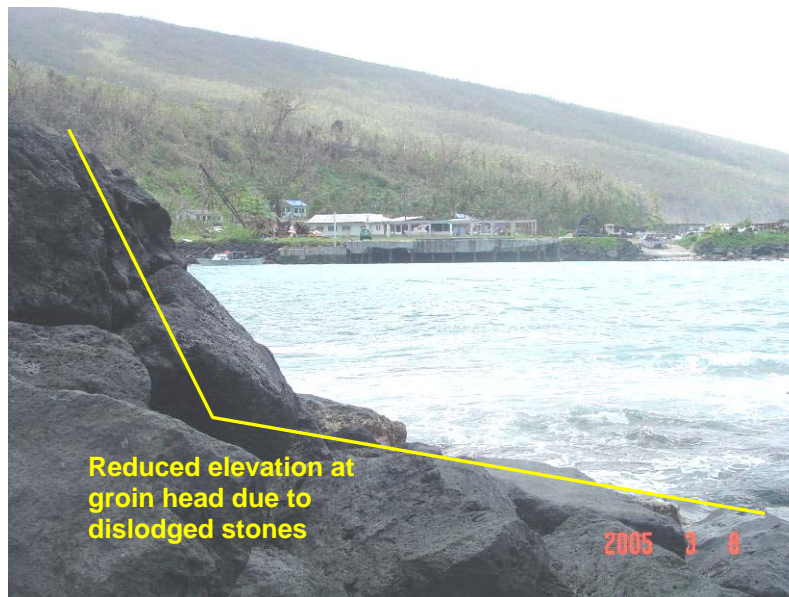
- e. Sta. 1+66, HS, 2 large voids at toe, 2 dislodged stone resting at toe.
Monitor this area.



- f. Sta. 1+66, HS, 1 void at harborside hinge, monitor.



h. Sta. 1+89, Dislodged armor stones at head.



i. Sta. 1+89, profile view of missing armor stones at head. Head "steps" down to a lowered elevation at its oceanward extent. Monitor this area closely for continued damage.



- j. Overview of groin structure.

Notes:

- a. The COE project sign is lying near the first range marker. The vegetation now obstructs the sign's view. There are deep scratches, gouges, and some graffiti on the sign. The project sign's monument was dismantled during the salvage/removal of a sunken tug boat by persons unknown.
- b. The Non-Federal boat ramp adjacent to the groin is in total disrepair and is unusable.
- c. The Non-Federal interior revetment adjacent to the groin is deteriorating.

5. Findings/Conclusions:

Revetment/Breakwater:

Observed Damage Level - Fair-Poor, Some deterioration to the structure and defects such as encroachment and vegetation overgrowth are evident, but function is not significantly affected. Particular attention should be paid to stations 1+49 and 2+00 to 2+78 where the revetment sideslope is flattening/settling, and to the head portion of the breakwater where there are several dislodged toe armor stones.

Groin:

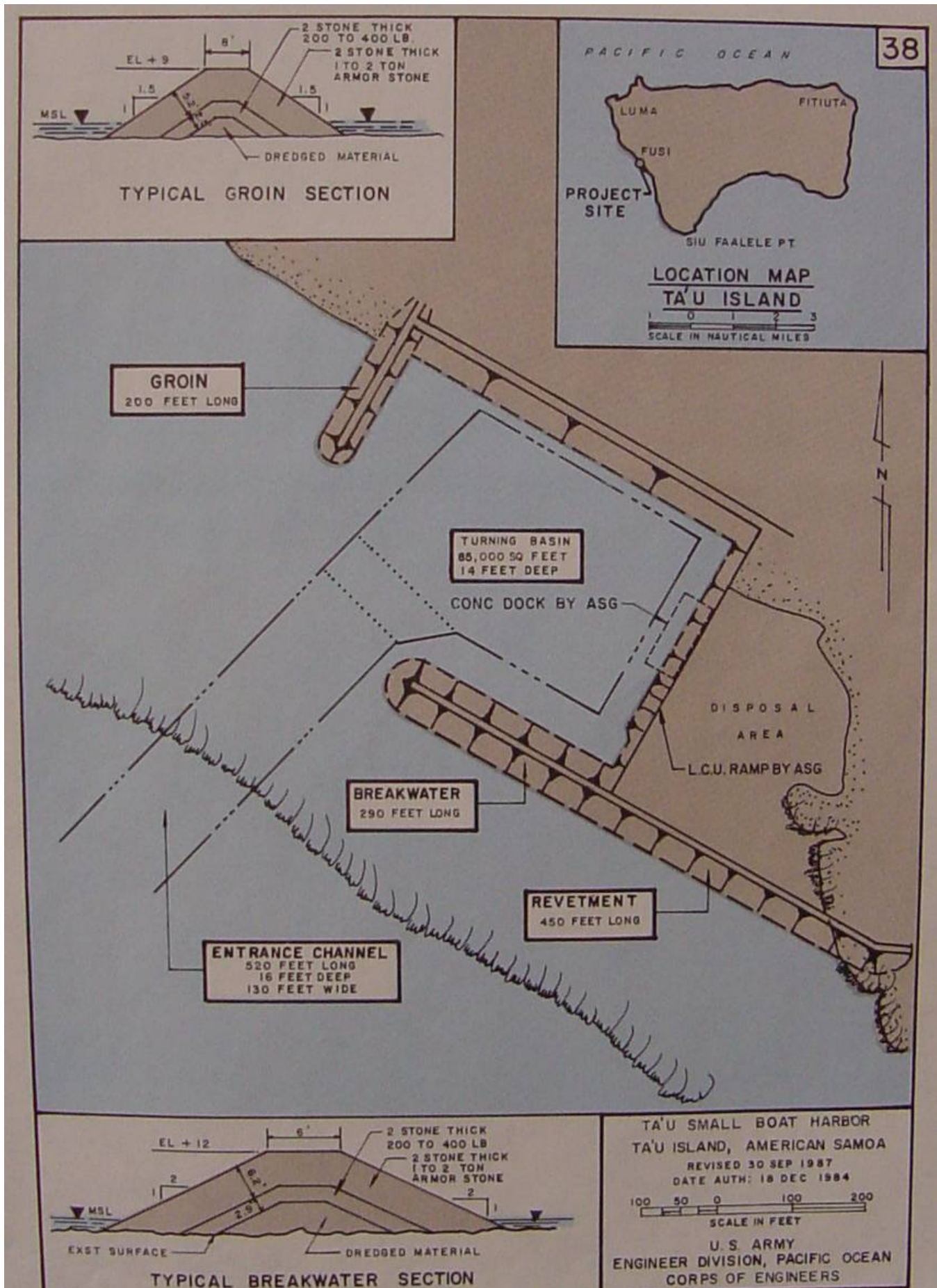
Observed Damage Level, Fair, Some deterioration or defects are evident, but structural function is not significantly affected. Particular attention should be paid to the head portion at station 2+00, where there are multiple dislodged stones and noticeable changes to the slope of the structure at its head.



Signed: _____
Jessica Hays, CEPOH-EC-T

Signed: _____
Jim Pennaz P.E., Ch, CEPOH-EC-T

Attached:
Project Index Map





TAU SMALL BOAT HARBOR, AMERICAN SAMOA

CONDITION OF IMPROVEMENT 30 SEPTEMBER 1993

PREVIOUS PROJECTS: None.

EXISTING PROJECT: Authorized for construction on 18 December 1974 under Section 107 of the River and Harbor Act of 1960, as amended. Provides for an entrance channel 520 feet long, 130 feet wide, 16 feet deep; a turning basin of 85,000 square feet, 14 feet deep; a rubble breakwater 290 feet long; revetment 450 feet long; a groin 200 feet long, and appurtenant aids to navigation.

PROGRESS OF WORK

Completed and Under Maintenance: The project was completed in September 1980. A wave gaging contract was completed in September 1985. A maintenance dredging contract, awarded in September 1991 was completed in February 1992 for \$378,000. Total materials dredged was 8,100 cubic yards.

Work Remaining: None

COST OF CONSTRUCTION:

	<u>New Work</u>	<u>Maintenance</u>	<u>Total</u>
<u>Completed Works:</u>			
United States Funds			
Corps of Engineers	\$1,850,569	\$546,600	\$2,397,169
Coast Guard	4,748	0	4,748
Contributed Funds			
Required	54,034	0	54,034
Other	<u>471,536</u>	<u>0</u>	<u>471,536</u>
Total Costs	\$2,380,887	\$546,600	\$2,927,487

RANGE OF TIDES: The range of tide between mean low water and mean high water is 2.5 feet.